

AMENDMENTS

IN THE SPECIFICATION:

Please replace the paragraph [0057] with the following paragraph:

--[0057] The physical layer portion in the modem 180 includes a 100BaseTX module 184 which is adapted to receive a 100BaseT signal ~~182 from~~ at a 100BaseT port 182 and to output a signal compatible with the Media Independent Interface (MII) bus specifications. The BCM5203 100Base-Tx Quad Transceiver manufactured by Broadcom Corporation, Irvine, California is suitable for use in the modem according to the present invention and implementing the 100BaseTX PHY module 184.--

Please replace the paragraph [0058] with the following paragraph:

--[0058] The MII signal output from the 100BaseTx module 184 is input to a portion MII bridge 186. The bridge 186 is provided for coupling the MII signals from the module 184 to and from a message memory unit ~~184~~ 187 and an MII interface 188. The GT48006 2-Port 10/100 Mbps Ethernet Bridge/Switch Controller manufactured by Galileo Technology, San Jose, California is used in a preferred embodiment to implement the MII bridge 186. The message memory 187 is provided for soaking up or compensating any differences in data rate between the two sides of the MII bridge 186.-

Please replace the paragraph [0083] with the following paragraph:

--[0083] A block diagram illustrating the transmit portion of the 100BaseS modem of the present invention in more detail is shown in Figure 6. Note that each DSL Ethernet Port card[[s]] 196 (Figure 4) comprises an independent modem transmitter and receiver. Therefore, the following description of the modem transmitter and

receiver applies to each DSL Ethernet Port card. The data source feeding the modem supplies a transmit data signal and a transmit enable signal to the transmitter interface 80 of the 100BaseS modem. The transmit enable signal to the transmitter interface 80 of the 100BaseS modem. The transmit interface inputs digital data to the frame first in first out (FIFO) 82. The FIFO functions to adjust the rate of data flow between data source and the modem itself. The FIFO compensates for differences in the data rates between the two devices. The output of the FIFO is input to a sync generator 91, header generator ~~89~~ 83 and the randomizer 84. The sync generator functions to generate the output two sync bytes to the frame formatter 89. Preferably, the two sync bytes are F6H and 28H. The header generator functions to generate header information that typically spans a plurality of bytes. The header itself is then randomized or scrambled by randomizer 90 and subsequently encoded by encoder 92. The output of the encoder is input to the frame formatter.—